

REMARKS

A final Office Action was mailed on May 10, 2004. Claims 1 – 12 are pending in the present application. With this Response, Applicant amends the specification and claims 1 and 7. No new matter is introduced. Support for the amendments may be found for example, in Applicant's specification at page 12, lines 11 – 21 and in Applicant's FIG. 7.

OBJECTION TO SPECIFICATION

The specification is objected to for certain informalities at page 2. Applicant amends the specification to address these informalities, and respectfully requests that the objections to the specification be withdrawn.

REJECTION UNDER 35 U.S.C. §§ 102, 103

Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,252,855 to Langley in view of U.S. Patent No. 5,307,351 to Webster. Claims 3 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Langley in view of Webster and U.S. Patent No. 6,370,173 to Shaffer et al. Claims 4 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Langley in view of Webster and U.S. Patent No. 5,579,301 to Ganson et al. Claims 5, 6, 11 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Langley in view of Webster and U.S. Patent No. 5,115,429 to Hluchyj et al. Applicant amends claims 1 and 7 to further clarify the nature of his invention, and respectfully traverses the rejections.

In independent claims 1 and 7, Applicant respectively discloses a method and router apparatus that changes a fragment size of data packets by: a) acquiring in the router a parameter indicative of whether proper audio quality is maintained through ongoing transmission of the audio packets, and b) dynamically changing the fragment size of the data packets in response to the acquired parameter.

Langley discloses a method and apparatus for negotiating a maximum frame size to be used by endpoint devices at least an originator of frames and a recipient of frames in a frame relay network (see, e.g., abstract of Langley). According to the method of Langley (see, e.g., column 2, line 63 to column 3, line 25 of Langley):

Each endpoint device can receive an acceptable delay for each originating device that uses the endpoint device to send information over the frame relay network. The endpoint device uses the lowest of the acceptable delays and the speed of the line to calculate the maximum size frame it can send and receive in order to maintain delays below the lowest acceptable level. Each endpoint device then transmits the maximum frame size it calculates to other endpoint devices on the frame relay network from which it is capable of receiving frames. Each endpoint device on the network sends frames that are not larger than the lower of the sending endpoint device's maximum frame size and the receiving endpoint device's maximum frame size.

The resulting frames are the largest size that will not exceed an acceptable level of delay for either the sending or receiving device, minimizing the network traffic impact without exceeding the acceptable delay of the sending and receiving endpoint device. The frame sizes are tailored to the needs of each pair of endpoint devices: endpoint devices in communication for which the maximum possible delay is acceptable can use the maximum allowable frame size for the network, such as 4096 bytes. Other endpoint devices in communication will use a lower size frame, but not lower than necessary to ensure a delay not greater than the acceptable delay, minimizing the network traffic impact to that which is necessary to accommodate the needs of each device in communication.

Webster discloses a data communication apparatus directed to adjusting a length of data frames being assembled based on a determined degree of impairment of the communications medium (se, e.g., abstract of Webster). The apparatus of Webster

reduces framing overhead by increasing the frame size when a degree of impairment of the communication medium is small, and reduces retransmission overhead by decreasing the frame size when a degree of impairment of the communication medium is large. Here, the degree of impairment of the communication medium indicates a degree of impairment of the data frame communication.

A configuration arrived at through the combination of Langley and Webster provides for adjusting a degree of impairment of data frame communication (as taught by Webster) after a frame size is initially determined for a pair of endpoints by taking into account acceptable delays, including delays acceptable for time-sensitive information (as taught by Langley). However, in sharp contrast to Applicant's claimed invention, neither of these cited references, either alone or in combination, teaches or suggests adjusting a fragment size based on the ongoing transmission of time-sensitive information (e.g., audio packets).

Although Langley recognizes a need to determine acceptable delays inclusive of time sensitive information, Langley none-the-less fails to recognize that conditions in regard to time sensitive information are changing. Although Webster recognizes the need to change a length of data frames in response to a degree of impairment of data frame communication, Webster fails to recognize a need to account for impairment as to time-sensitive information. As a result, there is no suggestion to combine the two references to teach Applicant's claimed method for changing packet fragment size by determining a parameter indicative of audio (time-sensitive) packet quality for ongoing packet transmissions, and dynamically changing fragment size in response to an ongoing determination of time-sensitive packet quality. These deficiencies are in addition not overcome by the other cited references.

Accordingly, Applicant respectfully submits that Applicant's claims 1 and 7 are not made obvious by any combination of the cited references, and are therefore allowable. As claims 2 – 6 and 8 - 12 respectively depend from allowable claims 1 and 7, Applicants respectfully submit that claims 2 – 6 and 8 - 12 are also allowable for at least this reason.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that 1 - 12, which include independent claims 1 and 7, and the claims that depend therefrom, stand in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Respectfully submitted,



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